

FOLIO

University of Alberta

13 April 1989

Kaplan Awards for Excellence in Research

Amalgam of science and Shakespeare as University honors Kebarle, Orrell

Paul Kebarle (Chemistry) confided that he'd been warned there should be "no science" in his lecture on 3 April at SUB Theatre, when he and John Orrell (English) received the 1989 J Gordin Kaplan Awards for Excellence in Research. However, he decided he couldn't give up the science completely when speaking about "Ions in the

Phase—Ions in Solution. How Two Fields were Bridged:

Implications and Applications."

Still, recognizing the "communication problem" for scientists addressing a general audience, he'd try to "put the human element" into his talk, he indicated, by interspersing the necessary chemistry with slides of himself and colleagues at work over the years.

Acclaimed for his pioneering work in gas-phase ion chemistry,

in which he developed measurements of ion equilibria, Dr Kebarle discussed the progress of his research. Using chemical equations, diagrams and charts, he demonstrated how he explored what happens as ions go from the gas state to the liquid state by accumulating solvent molecules. To attack the problem, he explained,

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(From left) Wendy and John Orrell and Paul and Beverly Kebarle savor Awards Night.

University of Alberta

Board reluctantly raises rent

There will be rent increases of varying amounts in six University of Alberta residences this September, but the vote taken at last week's Board of Governors meeting was ever so close.

A motion to raise the rent at Lister Hall, Michener Park, Pembina Hall, HUB International, Faculté Saint-Jean and Garneau was supported by seven Governors and opposed by seven more. John Schlosser (Chair) broke the deadlock by voting in the affirmative.

Allan Warrack, Vice-President (Administration), said, "It's with no joy that the motion for increases is put forward . . . it's a Hobson's choice."

Housing and Food Services has an accumulated deficit in excess of \$500,000, a sum that "loomed very large" when it came time to formulate the motion, President Horowitz said.

A sizeable portion of the deficit is attributable to the lengthy closure of units in HUB International because of the recent renovation project.

Food prices are usually increased annually, however there will be no increase this year and prices in Lister Hall will decrease by 10 percent, said David Bruch, Director of Housing and Food Services.

The Board deferred a motion concerning the approval of AIDS guidelines, that is, a package made up of general guidelines, staff guidelines and student guidelines.

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Photo Services

Kearle, Orrell

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he had to separate the process into its components. "It's a bit like taking a watch apart, looking at all the pieces, putting it back together and hoping it works again."

He had to examine the intrinsic tendency of a molecule to dissociate into ions in the gas phase, in the absence of solvents, then consider the effect of the solvent, when solvent molecules are added one at a time, and determine the energy released in each interaction, using a mass spectrometer to analyze the reactions, said Dr Kearle.

When he and his research group were working on another problem, namely, the effect of radioactivity on gases, they developed a mass spectrometer that could analyze the ions produced by the radiation. This was done at normal atmospheric pressure, considered "ultrahigh" in mass spectrometry.

In these experiments, reported Dr Kearle, the scientists

unexpectedly observed what happens when solvent molecules add themselves to ions, molecule by molecule, and could then measure the exact energy released. They also used the same methods, he added, to determine and measure the tendency of molecules to form ions in the gas state.

These 'pure chemistry' explorations have led to commercial spinoffs, he told the audience: analytic instruments which can detect impurities in air, enabling customs officials, for example, to "sniff" for narcotics or explosives. Former graduate students participated in the development of these instruments, and a Toronto-based company has sold \$25 million worth to Japanese customs, "one example where hightech instrumentation flowed from Canada to Japan and not vice versa," Dr Kearle noted.

Introducing laureate John Orrell, Pat Clements (Dean of Arts) revealed that he'd intended to become an architect before he decided to pursue his studies in

English. Thus, perhaps it is not surprising that "The Quest for Shakespeare's Globe" for which he is honored is fed by his intense fascination with perspective, optics, pattern and design, to which she referred.

In his talk, Professor Orrell stressed that the study of the Globe theatre has been at the centre of all his research. As the architectural adviser, he's been involved in the reconstruction of the theatre in London. "The building will provide most of the physical conditions that Shakespeare took for granted when he wrote his plays," he said. The aim, he added, is "to restore Shakespeare to his own voice, to let the plays speak through their original instrument."

A difficulty facing those involved in reconstruction of an Elizabethan theatre is the fragmentary and somewhat bewildering nature of the evidence, Professor Orrell reported. However, he and others have based their decisions about the Globe on a detailed 1630s sketch of London by Bohemian topographical artist Wenceslaus Hollar. Professor Orrell elaborated on their conclusions about the theatre's shape (polygonal with 24 sides), its size (about 100 feet across, determined by trigonometric analysis of site lines on a survey map), the carpenter's plans, and the building's orientation.

Within the last month, new information has come to light, he then told the audience. A team of archeologists have uncovered remains of another Elizabethan theatre, the Rose. The dig has confirmed rather than challenged their research about theatre design and size, he indicated.

Located about 100 metres from the Rose, on the site of what is now a car park, stood the Globe. "Beneath the rows of Volvos and Minis . . . bits of Shakespeare's theatre may still exist," he postulated. Just two weeks ago, the present owners of that property announced that archeological work will begin this summer, allowing the London museum four to six months to investigate the site.

He is relieved the research prize has already been awarded on a nonreturnable basis, declared Professor Orrell with a wry smile. While the imminent excavation represents wonderful news for theatre historians, he cannot help but wonder whether it will confirm or challenge the conclusions he has drawn about Shakespeare's Globe. □

AAS:UA votes in favor of return to CAUT

A majority of the membership said yes.

At the end of March, 2,088 ballots were distributed to the statutory members of the Association of the Academic Staff of the University of Alberta (AAS:UA) asking them if they wanted to rejoin the Canadian Association of University Teachers (CAUT). Of the 1,567 faculty, 81 professional librarians, 34 faculty service officers and 266 administrative and professional officers funded from the University's operating grant and the additional 140 AAS:UA members funded from long-term external funds, a total of 1,326 people returned their ballots.

In all, 1,087 voted in favor of rejoining CAUT, 239 voted against. As more than 50 percent of the AAS:UA membership agreed, AAS:UA President John Bertie (Chemistry) has written a formal letter of application to CAUT. He and others on the AAS:UA Executive will attend the CAUT Council meeting 12 to 14 May, at which the University of Alberta's application will be considered. CAUT council will endorse the membership at that time, Dr Bertie predicts. However, he points out, payroll deduction of dues will begin 1 July 1989, as requested by the AAS:UA.

"They want us back in for reasons other than financial, and we're looking forward to working with them again," Dr Bertie comments. "CAUT does a great job of providing cohesiveness to the faculties of Canada's universities, collecting and supplying information, and providing a forum to discuss points of common interest and help develop policies."

And most importantly, he adds, CAUT lobbies the federal government on behalf of the universities. "Postsecondary education systems of Canada receive \$5 billion from the federal government . . . yet there is no minister responsible for the welfare of universities because education falls under provincial funding." It is critical that CAUT voice concerns for the universities, Dr Bertie stresses, so that 'cutting the deficit' does not mean drastic cuts to university funding. □

FOLIO

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Office of Public Affairs
423 Athabasca Hall
University of Alberta
Edmonton, Alberta T6G 2E8
(403) 492-2325.

MTS - TJMH
PROFS - ZZOPA
FAX - 492-2997

All enquiries and correspondence should be directed to:
Ron Thomas
Editor

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University
of
Alberta

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Profile: Koto Hayakawa, Technologist, Biochemistry

looks like a clear drop of water. Koto Hayakawa knows the beauty it holds. Each drop among the hundreds on slides in her lab contains a dissolved purified protein and salts or other precipitants ("it depends on the PH, whether it is acid, neutral or basic") to crystallize the protein under optimum controlled conditions. The resulting crystals are quite beautiful.

"Under the microscope, they look like diamonds, opals or quartz." And that pure beauty can be fascinating, she acknowledges. "What satisfies me is to get the best crystal which is useful, but it takes much time and effort. Once in a while, I just look at crystals which are not useful and admire them." Recently, she's begun to translate that admiration into stained glass designs which she crafts in her spare time.

Hayakawa is a member of Michael James's (Biochemistry) research team, which recently deciphered the three-dimensional crystal structure of renin, a central enzyme in high blood pressure,

failure and kidney disease. In providing the "material" for analysis in the research, Hayakawa does not simply consider jewel-like form. "We have to get the best crystal," she stresses, and that means a single crystal of sufficient

size, not clusters. "That's the hardest part," she says. "To get a single large crystal which is useful for solving the structure of the protein."

Once the crystal is formed, it is mounted in a glass tube and X-rayed. Crystallographers then read the image to discern the structure of the crystal.

The process of crystallizing the protein only takes a couple of hours but it may take months, even years to get the crystals required for the experiments. "You scan hundreds of conditions." The work takes a lot of patience, Hayakawa suggests.

With a BSc in organic chemistry, Hayakawa left the plastics research group she was part of in Osaka about 20 years ago. "I came here to seek a different way of looking at life," she recalls. "When you are young, you really don't think too much," she laughs. "I actually didn't have any idea how big Canada was . . . I didn't realize what I was doing."

Fortunately, with her experience, she landed a job first with Raymond Lemieux synthesizing antibiotics and then with Dr James.

Hayakawa reflects on her life in Edmonton. "If I were in Japan, I wouldn't have been working as much, achieved as much in my career," she asserts. As well as

growing crystals, she looks after the laboratory. "I happen to be sort of handy and can fix the machines," she admits modestly, believing it unlikely that she'd been given that kind of responsibility back in Japan.

Although she misses her family in Nara and visits when she can, Hayakawa's happy to be here. In

Japan, as a woman in the sciences, she'd have to become supercompetitive, she says.

"Women always have to be better than men, if they are equal it's no good. Besides, women are not encouraged to work for very long, nor to maintain a career and family. I'm fortunate to be here," she concludes. □



LETTERS

One man's meat . . .

■ Every day on my way to work I pass rusty clumps of metal that pass for steel sculpture. These formless hulks blight the space between the Fine Arts Building and the Z-zone parking lot. Who is Anthony Caro trying to kid when he makes the ridiculous claim that Edmonton is one of the most outstanding sculptural centres in the world? ("Master sculptor likes what he sees in Edmonton," *Folio*, 30 March 1989.) Is it really "the rest of the world," as Caro claims, that "is being seduced by a lot of bad stuff"? Or is it we who are having the steel wool pulled over our eyes? I, for one, say the emperor has no clothes and that what rots out there between FAB and Z-zone is junk.

John-Paul Himka
Department of History

Smalls wonder about decision on Writing Competency Test

■ Having heard in *Folio* concerning the recent decision of the General Ficklettes Council to end the need for the Writing competency exam, an inquiry seems necessary as to why noone in the council seemingly spoke in defense of the writing competency requirement that has brought forth a literacy situation much better and different to what occurred in this University heretofore. The exam compelled students that could not properly write English to reluctantly acquire some, even although they might have been able to graduate as Masters of this University with minimum expression skills otherwise. Being as our colleagues on the GFC has now deemed it sufficient that students can partake of the optional writing skills courses that are supplied in the English department, hopefully many of them will note the necessity of the increased benefits from this, however some of us professors that are obliged to mark their papers fear that we will still need to increasingly correct their English which they see as separate from their disciplines, which it is not our job to do so. In regards to this matter we must bear in mind what the Emperor Napoleon may have said when he launched his calvary into the dessert, e.g., *Soldats songez que, du haut de ces pyramides, du sublime au ridicule il n'y a qu'un pas.*

In our view, this move is a backwards step.

Carola Small
Department of History
Alastair Small
Department of Classics



Koto Hayakawa is a team player all the way.

Schouls receives Arts Faculty Undergraduate Teaching Award

Peter Schouls (Philosophy) was presented with the Arts Faculty Undergraduate Teaching Award 1988-89 by Myer Horowitz at Arts Faculty Council last week.

The award, an inscribed plaque, was first presented in 1981 to recognize outstanding teachers. Nominations—supported by testimonials from students and staff both inside and outside our University—are judged by a Faculty committee who may make three awards. In nominating Dr Schouls, one outside assessor described him as "a dedicated scholar turning to teaching with imagination and commitment," who gives "thoughtful, pedagogically sound attention to his students."

In an interview later, Dr Schouls said he finds undergraduate teaching exciting.

"There's a particular excitement in teaching introductory courses—working with people who are, perhaps for the first time in their lives, beginning to think rather than just remember. It's opening up new vistas, teaching them to reflect, broaden their

minds, become critical thinkers. This is quite different from the peer relationship with graduate students."

Dr Schouls believes teachers "must be willing to listen and take students' comments seriously. "Every year I learn a lot from my introductory students," he said. "From class discussions you know how you've come across, and where students are at. But," he added, "you have to dare to shut them up—tactfully—if they make nonsense. You must remain in control."

He noted that "each student has her or his unique needs and unique contributions," and stressed the importance of "making yourself available to students after class."

Dr Schouls joined our University in 1967 with a PhD from the University of Toronto. He teaches graduate and undergraduate courses in his department which he has chaired twice, is the author of two books and editor of a 16-volume series on the philosophy of John Locke, and has twice been awarded a McCalla Professorship (1981 and 1987). □

Donald Wigglesworth, 1934 - 1988

Don Wigglesworth died late in 1988 following a short illness. He had been a member of the Department of Oral Biology in the Faculty of Dentistry since 1974.

Dr Wigglesworth gained the BDS from University College Hospital London in 1958, and the postgraduate Diploma in Orthodontics (1962) and Fellowship in Dental Surgery (1964) from the Royal College of Surgeons, England. In 1965 he was awarded an MRC Research Scholarship and in 1966 an MRC Junior Research Fellowship to study for the PhD. The supervisor for his thesis research at Strangeways Laboratory was Dame Honor Fell and for his degree (1972) he successfully cultured tooth germs that were able to mineralize enamel, the first such demonstration.

In 1972 he moved to Harvard

Medical School as a Research Fellow and in 1974 was appointed as an Associate Professor in the Department of Oral Biology at this University where he taught histology and continued his research into aspects of tooth development.

Don Wigglesworth was known as one of the characters in the Faculty. He had an extremely wide understanding of topics in the dental field and was a very amusing raconteur with a considerable knowledge in areas of history and literature. These and his noted tendency to be accident-prone will ensure that Don Wigglesworth is long remembered by the staff of the Faculty of Dentistry.

He is survived by a brother who lives in England. □

U of A Press author wins medal

Gloria Strathern (Library and Information Studies) has been awarded the Marie Tremaine Medal by the Bibliographical Society of Canada for her book *Alberta Newspapers 1880-1982: An Historical Directory*, which was published by the University of Alberta Press last November.

The medal will be presented to Professor Strathern at the Society's Annual Meeting which will be held this year in Edmonton, 20 June. It is awarded for outstanding service to Canadian bibliography and for distinguished publication in either French or English in that field.

The Press also heard recently that its book *Alice Munro Paradox and Parallel* by WR Martin of the Department of English at the University of Waterloo, has been selected as an "Outstanding Academic Book" by *Choice*, the American Library Association's reviewing journal for college libraries.

The most recent publication of the Press, issued 12 April, is *A Mind For Ever Voyaging, Wordsworth at Work Portraying Newton and Science* by WK Thomas and Warren U Ober, also of the Department of English at the University of Waterloo. □

Temporary academic staff study

The Equity Office in combination with AAS:UA has been conducting a study on temporary academic staff. A questionnaire was circulated recently to all staff members in this category (excluding Dentistry, Medicine, and faculty members who have retired from full-time service). To

date, responses have been received from 47 percent of the full-time and 35 percent of the part-time staff members.

Those who are in the process of filling out their questionnaire are urged to forward it as soon as possible. Data analysis begins next week. □

CURRENTS



Conference Fund

The Conference Fund of the University may provide modest financial support for conferences, conventions, and symposia of an academic nature (as distinct from visiting lectureships) held in the province and sponsored or hosted by the University or its students or student organizations. The Fund is administered by a Conference Funds Committee of General Faculties Council and is the only fund in the University for this purpose.

All applications for grants should be submitted to the Chairman of the Committee. Special application forms are available, along with related information sheets.

The Chairman is Dr R Pannu, Educational Foundations, 516 Education North. Telephone 492-3726 for applications.

Farewell Reception for William Blanchard

William Blanchard, Professor of Psychology, is retiring from the University of Alberta, and a reception in his honor is to be co-hosted by the Department of Psychology, the Faculty of Arts, and the Office of the Registrar.

Dr Blanchard began his career at the University of Alberta in 1961 when he was appointed Assistant Professor of Psychology. He became Associate Professor in 1968, and Professor in 1974. In 1969-70 he served as Acting Chairman of the Department of Psychology, and from 1972 to 1979 was Associate Dean of Arts for Curriculum and Student Programs. From 1980 to 1985 he served as Registrar of the University.

The farewell reception in Dr Blanchard's honor will be held in the Upper Lounge of the Faculty Club on Wednesday, 10 May, from 4 to 6 pm. All of his friends and colleagues are invited to attend.

Anyone wishing to contribute towards a gift should send a cheque, made payable to "University of Alberta", to Pamela Jarvis, Department of Psychology, P220 Biological Sciences Building, before 5 May.

Vacation Planner ready

The 1989-90 Vacation Planner is now available, compliments of Printing Services. To order your 11"x22" Planner, call Printing Services at 492-4246.

Alta Nova Piano Trio to essay Beethoven's 'Ghost Trio'

"A trio of trios . . . a brand new musical triumvirate . . ." Words of high praise in the *Edmonton Journal* (28 November 1988) review of the highly successful debut of the Alta Nova Piano Trio.

The first permanent ensemble of its kind in Edmonton, the Alta Nova Piano Trio has brought together three leading musicians with extensive international performing experience.

Now pianist Helmut Brauss, violinist Norman Nelson, and cellist Tanya Prochazka, all faculty in the Department of Music, will perform again on the Edmonton stage, on 16 April at Convocation Hall.

Their spring program of Masterworks features the famous "Ghost Trio" by Beethoven (Trio for Piano, Violin and Violoncello, Op 70, No 1, in D-major, 1808), so-named for the ominous, mystical, stunningly 'Beethovenesque' passages in the slow movement. They will then highlight the rhythmically 'eresting work of the

Czechoslovakian master composer of chamber music, Bohuslav Martinu, in his Trio for Violin, Violincello and Piano, No 2, in D minor (1950).

To complete the evening, the Alta Nova Piano Trio will perform the most expansive trio by Brahms, Op 8 in B-major, which Brahms revised later in life, creating a work of symphonic character and proportions.

The concert will begin at 8 pm. Admission is free. □

Board *Continued from page one*

More time to consider medical and legal aspects of the guidelines was the reason for deferral to the May meeting. Peter Miller, Dean of Student Services, and Frank Cookson, Director of University Health Services, will be invited to attend. Also, comment from the University's solicitor, Field and Field, will be sought.

In other Board news, a proposal from General Faculties Council for a master's degree program in speech-language pathology and for the elimination of the BSc degree program in speech pathology and audiology was approved. □

EVENTS



Talks

Entomology

17 April, 4 pm WG Eberhard, Escuela de Biología, Universidad de Costa Rica, "Coital Courtship and the Evolution of Animal Genitalia." TBW-1 Tory Building.

Area Studies Committee Africa and South Asia

14 April, noon Nalini Murthy, College at Prince George, BC, "Kannada Literature Through the Ages." 14-6 Tory Building.
21 April, 3 pm A film presentation, "Maharajah Swathi Thirunal: A Great Composer and Social Reformer"—a short introduction by P Krishnan. 14-6 Tory Building.

Animal Science

14 April, 3 pm Mike Dugan, "Hirsuteness, Image and Performance." 1-13 Agriculture-Forestry Centre.
21 April, 3 pm John Dugan, "Neonatal Lipid Digestion." 1-13 Agriculture-Forestry Centre.
28 April, 3 pm G Wu, M Liu, Z Zhang, and S Tian, "Education in China." 1-13 Agriculture-Forestry Centre.

Genetics

14 April, 4 pm Patricia A Romans, National Institutes of Health, Bethesda, Maryland, "Insect Immunity and Prospects for Genetically Engineering Mosquitoes Refractory to Malaria Transmission." G-217 Biological Sciences Centre.

Finance and Management Science

17 April 3 pm James E Gentle, IML, Inc., "How Good Are Our Computer Simulations?" 4-16 Business Building.

Biochemistry

17 April, 4 pm Nahum Sonenberg, "5' Noncoding Regions of Eukaryotic mRNA's as Effectors of Translation: Poliovirus and HIV-1." 2-27 Medical Sciences Building.

Medicine

18 April, 3:30 pm Bryce KA Weir, "Cerebral Vasospasm." 2-115 Clinical Sciences Building.

Techniques in Cell and Molecular Biology Seminar Series

19 April, noon Warren Gallin, "Genomic and cDNA Cloning." Presented by Anatomy and Cell Biology. 6-28 Medical Sciences Building.

Marketing and Economic Analysis

20 April, 3 pm Kenji Tominomori, professor, Faculty of Economics and Business Administration, Hokkaido University, "Has the KANBAN System Really Surpassed Fordism? (An Assessment of the Impact of 'Just-in-Time' System)." 4-16 Business Building.

Philosophy

24 April, 4 pm Michael Ruse, University of Guelph, "Philosophy of Biology Today." 3-10 Business Building.
25 April, 4 pm Dr. Ruse, "Is the Theory of Punctuated Equilibria a New Paradigm?" 3-06 Business Building.

Law

22 April, 9:30 am Saturday Morning at the Law School—"Immigration and Refugees." Law Centre.

The Arts

Music

14 April, 1 pm Meet the Masters—Guitar Masterclass—Norbert Kraft, guitarist. Convocation Hall. Admission: \$5.
16 April, 8 pm Alta Nova Piano Trio Recital. Convocation Hall.
18 April, 8 pm Student Recital—Roger Admiral, pianist. Convocation Hall.
20 April, 2 pm Meet the Masters—Piano Masterclass. Grant Johannessen, pianist. Admission: \$5/adults; \$3/students and seniors. Buchanan Hall, Alberta College.

SUB Theatre

14 April, 8 pm Punjabi Concert—"Golden Star." Tickets at door.
21 April, 8 pm Faculté Saint-Jean presents "Hart Rouge." 469-4401.

Positions

The University of Alberta is committed to the principle of equity in employment. In accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.

Support Staff

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 492-5201. Due to publication lead time and the fact that positions are filled on an ongoing basis, these vacancies cannot be guaranteed beyond 7 April. For a more

up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR. Positions available as of 6 April 1989.

The salary rates for the following positions reflect adjustments in accordance with the terms for the implementation of the Pay Equity Program, effective 1 April 1989 for those positions in the "green-circled" and "white-circled" categories.

Office Services File Clerk, Grade 2, Office of the Registrar, (\$1,288-\$1,586)
Senior Financial Records Clerk, Grade 4, Technical Services, (\$1,462-\$1,900)
Clerk Steno, Grade 5, Food Science, (\$1,564-\$2,087)
Clerk Steno, Grade 5, Office of the Dean of Agriculture and Forestry, (\$1,564-\$2,087)

Systems Control Clerk, Grade 5, Physical Plant Parking Services, (\$1,680-\$2,087)
Mailroom Clerk, Grade 4 (40-hour week), Materials Management, (\$1,680-\$2,172)
Secretary, Grade 5, Centre for Advanced Study in Theoretical Psychology, (\$1,685-\$2,087)

Administrative Clerk, Grade 6, Office of Student Awards, (\$1,741-\$2,298)
Secretary, Grade 6, Faculty of Medicine, (\$1,806-\$2,298)

Departmental/Executive Secretary, Grade 6, Faculty of Graduate Studies and Research, (\$1,844-\$2,298)
Office Services Senior Clerk, Grade 6, Pension and Benefits Administration, (\$1,844-\$2,298)

Departmental/Executive Secretary, Grade 7, Office of the Vice-President (Research), (\$1,964-\$2,516)

Equipment Supervisor, Grade 7, (40-hour week), Physical Education (Support Services), (\$2,295-\$2,876)

Administrative Assistant, Grade 9, Housing and Food Services, (\$2,225-\$2,976)

Administrative Assistant, Grade 9, Extension (Local Government Studies), (\$2,225-\$2,976)

Nurse, Grade 9, (40-hour week), University Health Services, (\$2,420-\$3,401)

The following positions retain salary rates in accordance with the current classification system and pay plan.

Clerk Steno III (Part-time/Trust), Faculty of Business, (Accounting), (\$812-\$1,020), (prorated)

Clerk Steno III (Term to 6 November 1990), Faculty of Extension, (\$1,421-\$1,785)

Clerk Steno III (Trust), Canadian Institute of Ukrainian Studies, (\$1,421-\$1,785)

Clerk Typist III (Trust/term to 30 September 1989), Bioethics Project, (\$1,421-\$1,785)

Secretary (Trust), Faculty of Medicine, (\$1,584-\$2,023)

Public Relations/Publications Assistant I (Term to 31 March 1990), Housing and Food Services, (\$1,527-\$1,939)

Public Relations/Publications Assistant II, Housing and Food Services, (\$1,785-\$2,297)

Programmer Analyst I, Office of Research Services, (\$2,023-\$2,611)

Technologist I (Split-funded), Zoology, (\$2,023-\$2,611)

Technologist I/II (Trust), Pathology, (\$2,023-\$2,851)

Biochemistry Technologist I/II (Trust),
Biochemistry, (\$2,023-\$2,851)
Technologist I (Trust), Immunology,
(\$2,023-\$2,611)
Maintenance Worker II (Charge Hand),
Physical Plant - Grounds,
(\$2,109-\$2,730)
Nurse (Trust), Medicine, (\$2,109-\$2,730)
Programmer Analyst II, Computing
Science, (\$2,397-\$3,113)
Programmer Analyst III, Computer
Engineering, (\$2,851-\$3,723)
Programmer Analyst III, Computing
Science, (\$2,851-\$3,723)
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492-3790.

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Accommodations available

Sale - Two-storey, traditional home, 11603 Saskatchewan Drive. Three bedrooms, formal living and dining areas. Main floor family room. Beautifully preserved. Developed basement. View property. Bill Shaw, Royal LePage Realty, 487-6150. Visiting Toronto? Bed and breakfast in our restored home, minutes to downtown. Swim and steam included. Rates from \$40. Ashleigh Heritage Home. (416) 535-4000. Rent - Large furnished house, walking minutes from University campus/hospital. 432-7845 (evenings). Rent - Fully furnished townhouse, May to July. South side. 435-1710 or 492-5731. Sale - Owner, McKernan. 78 Ave across from school, nicely upgraded, two-storey semi-bungalow. Three bedrooms plus den. Gas barbecue included. 488-9553, 436-1758 after 5 pm. Rent - One-bedroom apartment across from University. Available 1 May-31 August. fully furnished. Attractive. Call 431-1702. Sale - Lansdowne. Just listed! \$156,000. New beige broadloom, large master bedroom, new three-piece ensuite, oak country kitchen, family room, three bay windows. Liz Crockford, Spencer Real Estate, 436-5250, 434-0555. Sale - Riverbend. Super large bungalow. Family room opens to southwest patio and brick barbecue area. French doors, jacuzzi, air conditioned, shake roof. Liz Crockford, Spencer Real Estate, 436-5250, 434-0555. Lease - Three-bedroom house, beautiful Old Glenora, 1 1/2 baths. Double attached, heated garage; large fenced lot; ravine; four appliances. \$1,250/month, DD, references required. (403) 452-6122. Sale - Garneau. Two storey, three bedrooms up, one bedroom basement. Two bathrooms, hardwood floors. Most appliances. Asking \$162,500. 433-6294 for appointment. Rent - McKernan. Quiet, renovated, four-bedroom semi-bungalow. Finished basement, single garage, fireplace, large yard, large living room, spacious kitchen-dining area with south exposure. Close to schools, transportation, University. 434-3420. Rent - July 1989-June 1990. Quiet, renovated, two-bedroom bungalow with fireplace. Excellent access to University. Prefer no smokers or pets. 455-0620 evenings. Sale - Laurier brick bungalow, 1,950', three bedrooms, family room, fully

developed basement, pool, jacuzzi. Resi Richter, Royal LePage, 483-9432. Sale - Contemporary bungalow, Valleyview. Three bedrooms, family room. Near river valley. Resi Richter, Royal LePage, 483-9432. Rent - Executive home, Valleyview. Four bedrooms, 2 1/2 baths, sun room, deck, appliances. Near ravine. Fifteen-minute drive to University. July 1989-June 1990. \$1,100/month. 483-0238, 492-0581. Rent - Spacious, two-bedroom home. Two blocks from University. August 1989-August 1990. No smokers or pets, please. Partially furnished. \$750. 439-3360. Rent - Garneau. Three-bedroom house, two blocks from University. One year from July/August 1989. Furnishings and rent subject to terms. 433-4510. Sale - Parkallen. Semi-bungalow, 1,400', hardwood floors, two bathrooms, mature trees, double garage. 437-6637. Rent - University area. Two bedrooms main floor, two bedrooms basement. Garage. \$700/month. 437-2718. Sale - Lakefront. Perfect retreat with panoramic view. Fully furnished, three-bedroom cottage on nicely treed, huge lot. North shore, Lake Wabamun. Chris Tenove, 433-5664, 436-5250. Spencer Realty. Sale - Lake Wabamun. Winterized, well-built cottage. Sauna, fireplace. Chris Tenove, 433-5664, 436-5250. Spencer Realty. Sale - Windsor Park. Charming, three-bedroom bungalow in immaculate condition. Just steps from University. Bright, sunny home, excellent basement development, double garage. September possession. Ann Dawrant, Spencer Realty, 436-5250. Sale - Riverbend. Near river. Executive, 3,000 sq. ft. home. Huge kitchen with solarium, four bedrooms with main floor den. South backyard. Ann Dawrant, Spencer Realty, 436-5250. Sale - University/Belgravia area. Immaculate, 1,500' bungalow. Fireplace, nice location. \$135,500. Ed Lastiwka, Royal LePage Realty, 437-7480, 437-4984. Sale - University/Belgravia area. Nice, four-bedroom semi, hardwood, many upgraded features. \$106,500. Ed Lastiwka, Royal LePage Realty, 437-7480, 437-4984. Rent - Old Glenora. Wellington Crescent. Two storey, three bedroom, furnished. References, please. No smokers or pets. 1989-90 academic year. Ray McCall, 421-9900 (office), 455-4619 (home). Sale - Grandview exclusive! Spacious and special, 1,508' bungalow, well maintained. Call Joan Lynch, Spencer Real Estate, 436-5250 or 433-9025. Rent - Young professor would like to share spacious, two-bedroom apartment with young professional or graduate student. 1 May. Two blocks from campus. Pool, laundry. \$330. 492-2828 after 17 April.

Accommodations wanted

Professional couple will sit your home/apartment, caring for plants and pets. References. 439-4790. Professor and family to housesit, May-August. Willing to pay some rent. 1-286-0203 collect. Lecturer and spouse desire apartment/house to housesit May-June. References. 437-2480.

Goods for sale

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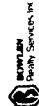
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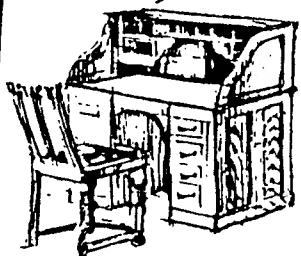


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3:30 - 5:00 p.m.

2-115 Clinical Sciences Building

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